AMENDMENTS TO THE CLAIMS

Claim 1. (Currently Amended) A non-catalytic, non-chimeric monoclonal antibody or ~~fragment~~ a purified attenuated mutant thereof from an organism with autoimmune disease which recognizes a ~~microbial~~ HIV antigen and neutralizes ~~microbial infection~~ HIV-1.

Claim 2. (Currently Amended) A non-catalytic, non-chimeric monoclonal antibody or ~~fragment~~ a purified attenuated mutant thereof from an organism with autoimmune disease which recognizes an antigen encoded by a HERV DNA sequence homologous to a ~~microbial~~ HIV antigen and neutralizes ~~microbial infection~~ HIV-1.

Claims 3-5. (Canceled)

Claim 6. (Currently Amended) The antibody or ~~fragment~~ purified attenuated mutant of ~~claim 5,~~ claim 1, wherein the autoimmune disease is systemic lupus erythematosus.

Claim 7. (Currently Amended) The ~~antibody fragment~~ purified attenuated mutant of claim 1, comprising light chain (VL) and heavy chain (VH) variable domains.

Claim 8. (Currently Amended) The ~~antibody fragment~~ purified attenuated mutant of claim 1, obtained by cloning cDNA for the antibody variable domains of the light chain (VL) and heavy chain (VH) from mRNA expressed by lymphoid cells.

Claim 9. (Currently Amended) The ~~antibody fragment~~ purified attenuated mutant of claim 1, which is a single chain Fv construct containing VL and VH domains linked by a linker.

Claim 10. (Currently Amended) The ~~antibody fragment~~ purified attenuated mutant of claim 9, wherein the linker is a peptide.

Claim 11. (Currently Amended) The ~~antibody fragment~~ purified attenuated mutant of claim 9, wherein the order of components from N terminus to C terminus is VL-linker-VH.

Claim 12. (Currently Amended) The ~~antibody fragment~~ purified attenuated mutant of claim 9, wherein the order of components from N terminus to C terminus is VH-linker-VL.

Claim 13. (Currently Amended) The ~~antibody fragment~~ purified attenuated mutant of claim 1, which is a single chain Fv construct containing VL and VH domains linked by a peptide linker, obtained by varying the amino acid sequence of the linker to provide for enhanced HIV-neutralizing activity.

Claim 14. (Currently Amended) The ~~antibody fragment~~ purified attenuated mutant of claim 13, wherein the linker is varied by mutagenesis.

Claim 15. (Currently Amended) The ~~antibody fragment~~ purified attenuated antibody mutant of claim 1, which is a light chain subunit.

Claim 16. (Currently Amended) The ~~antibody fragment~~ purified attenuated mutant of claim 15, obtained by cloning cDNA for a light chain variable (VL) and a light chain constant (CL) region.

Claim 17. (Currently Amended) The ~~antibody fragment~~ purified attenuated mutant of ~~claim 3~~ claim 1, obtained by expressing a library of Fv constructs on the surface of phage particles and isolating a subpopulation of HIV-reactive Fv particles that bind to an antigen selected from the group consisting of intact HIV, trimeric gp120, monomeric full-length gp120 and peptide fragments of gp120.

Claim 18. (Original) The Fv construct of claim 17, which neutralizes at least three strains belonging to different HIV clades.

Claim 19. (Original) The Fv construct of claim 17, which neutralizes strains belonging to HIV-1 clades B, C and D.

Claim 20. (Original) A monoclonal IgG, IgA or IgM construct obtained by recloning an Fv construct of claim 17.

Claim 21. (Original) The light chain subunit of claim 15, which is obtained by expressing a library of light chain constructs on the surface of phage particles and isolating a subpopulation of

HIV-reactive light chain particles that bind to an antigen selected from the group consisting of intact HIV, trimeric gp120, monomeric full-length gp120 and peptide fragments of gp120.

Claim 22. (Original) The light chain subunit of claim 21, which neutralizes at least two strains belonging to different HIV clades.

Claim 23. (Original) The light chain subunit of claim 21, which neutralizes strains belonging to HIV-1 clades C and D.

Claim 24. (Original) An Fv construct comprising a light chain VL domain of claim 15, and a VH domain from a different anti-gp120 antibody.

Claim 25. (Original) A monoclonal IgG, IgA or IgM construct obtained by recloning an Fv construct of claim 24.

Claim 26. (Canceled)

Claim 27. (Currently Amended) The antibody or ~~fragment~~ purified attenuated mutant of ~~claim 26~~ claim 2, wherein the autoimmune disease is systemic lupus erythematosus.

Claim 28. (Currently Amended) The ~~antibody fragment~~ purified attenuated mutant of claim 2, comprising light chain (VL) and heavy chain (VH) variable domains.

Claim 29. (Currently Amended) The ~~antibody fragment~~ purified attenuated mutant of claim 2, obtained by cloning cDNA for the antibody variable domains of the light chain (VL) and heavy chain (VH) from mRNA expressed by lymphoid cells.

Claim 30. (Currently Amended) The ~~antibody fragment~~ purified attenuated mutant of claim 2, which is a single chain Fv construct containing VL and VH domains linked by a linker.

Claim 31. (Currently Amended) The ~~antibody fragment~~ purified attenuated mutant of claim 30, wherein the linker is a peptide.

Claim 32. (Currently Amended) The ~~antibody fragment~~ purified attenuated mutant of claim 30, wherein the order of components from N terminus to C terminus is VL-linker-VH.

Claim 33. (Currently Amended) The ~~antibody fragment~~ purified attenuated mutant of claim 30, wherein the order of components from N terminus to C terminus is VH-linker-VL.

Claim 34. (Currently Amended) The ~~antibody fragment~~ purified attenuated mutant of claim 2, which is a single chain Fv construct containing VL and VH domains linked by a peptide linker, obtained by varying the amino acid sequence of the linker to provide for enhanced HIV-neutralizing activity.

Claim 35. (Currently Amended) The ~~antibody fragment~~ purified attenuated mutant of claim 34, wherein the linker is varied by mutagenesis.

Claim 36. (Currently Amended) The ~~antibody fragment~~ purified attenuated mutant of ~~claim 4~~ claim 2, obtained by expressing a library of Fv constructs on the surface of phage particles and isolating a subpopulation of HIV-reactive Fv particles that bind ~~Gln-Ile-Lys-Asn-Phe-Leu-Lys-Glu-Val-Gly-Lys-Val-Val-Tyr-Ile~~ a sequence of SEQ ID NO: 41 ~~Lys-Gly-Gly-Lys-Ala-Thr-Tyr-Ser~~, or fragments thereof~~, which correspond to HERV-sequence fragments within GerBank sequences AL592563.7 and AL391989.9, respectively~~.

Claim 37. (Original) A monoclonal IgG, IgA or IgM construct obtained by recloning an Fv construct of claim 36.

Claim 38. (Currently Amended) The ~~antibody fragment~~ purified attenuated mutant of claim 2, which is a light chain subunit.

Claim 39. (Currently Amended) The ~~antibody fragment~~ purified attenuated mutant of claim 38, obtained by cloning CDNA for a light chain variable (VL) and a light chain constant (CL) region.

Claim 40. (Currently Amended) The ~~antibody fragment~~ purified attenuated mutant of ~~claim 4~~ claim 2 , obtained by expressing a library of light chain constructs on the surface of phage particles and isolating a subpopulation of HIV-reactive Fv particles that bind ~~Gln-Ile-Lys-~~

~~Asn-Phe-Leu-Lys-Glu-Val-Gly-Lys-Val-Val-Tyr-Ile~~ a sequence of SEQ ID NO: 41 ~~Lys-Gly-Gly-Lys-Ala-Thr-Tyr-Ser~~, or fragments thereof~~, which correspond to HERV sequence fragments within GerBank sequences AL592563.7 and AL391989.9, respectively~~.

Claim 41. (Original) An Fv construct comprising a light chain VL domain of claim 40, and a VH domain from a different anti-gp120 antibody.

Claim 42. (Original) A monoclonal IgG, IgA or IgM construct obtained by recloning an Fv construct of claim 41.

Claim 43. (Currently Amended) The ~~antibody fragment~~ purified attenuated mutant of claim 2, which is a single chain Fv construct containing mutant VL and mutant VH domains linked by a peptide linker, obtained by varying the amino acid sequence of the VL and VH domains to provide for enhanced HIV-neutralizing activity.

Claim 44. (Currently Amended) The ~~antibody fragment~~ purified attenuated mutant of claim 43, wherein the VL and VH domains are varied by mutagenesis.

Claim 45. (Currently Amended) The ~~antibody fragment~~ purified attenuated mutant of ~~claim 4~~ claim 2, which is a single chain Fv construct containing mutant VL and mutant VH domains linked by a peptide linker, obtained by varying the amino acid sequence of the VL and VH domains to provide for enhanced HIV-neutralizing activity.

Claim 46. (Currently Amended) The ~~antibody fragment~~ purified attenuated mutant of claim 45, wherein the VL and VH domains are varied by mutagenesis.

Claim 47. (Original) A monoclonal antibody of claim 1, obtained by screening cell lines derived from lymphoid cells from the organism for the ability to bind a microbial antigen.

Claim 48. (Original) The antibody of claim 47 in which the microbial antigen is selected from the group consisting of intact HIV, trimeric gp120, monomeric fall-length gp120 and peptide fragments of gp120

Claim 49. (Original) A monoclonal antibody of claim 2, obtained by screening cell lines derived from lymphoid cells from the organism for the ability to bind a HERV encoded polypeptide antigen.

Claim 50. (Currently Amended) The monoclonal antibody of claim 49, in which the antigen is selected from the group consisting of ~~Gln-Ile-Lys-Asn-Phe-Leu-Lys-Glu-Val-Gly-Lys-Val-Val-Tyr-Ile~~ a sequence of SEQ ID NO: 41 ~~Lys-Gly-Gly-Lys-Ala-Thr-Tyr-Ser~~, or fragments thereof~~, which correspond to HERV sequence fragments within GerBank sequences AL592563.7 and AL391989.9, respectively~~.